

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-020075

(43)Date of publication of application : 23.01.2001

(51)Int.Cl.

C23C 16/44
H01L 21/205
H01L 21/31

(21)Application number : 2000-137175

(71)Applicant : ASM MICROCHEMISTRY OY

(22)Date of filing : 10.05.2000

(72)Inventor : BONDESTAM NIKLAS
KESAEALAE JANNE
KETO LEIF
SOININEN PEKKA T

(30)Priority

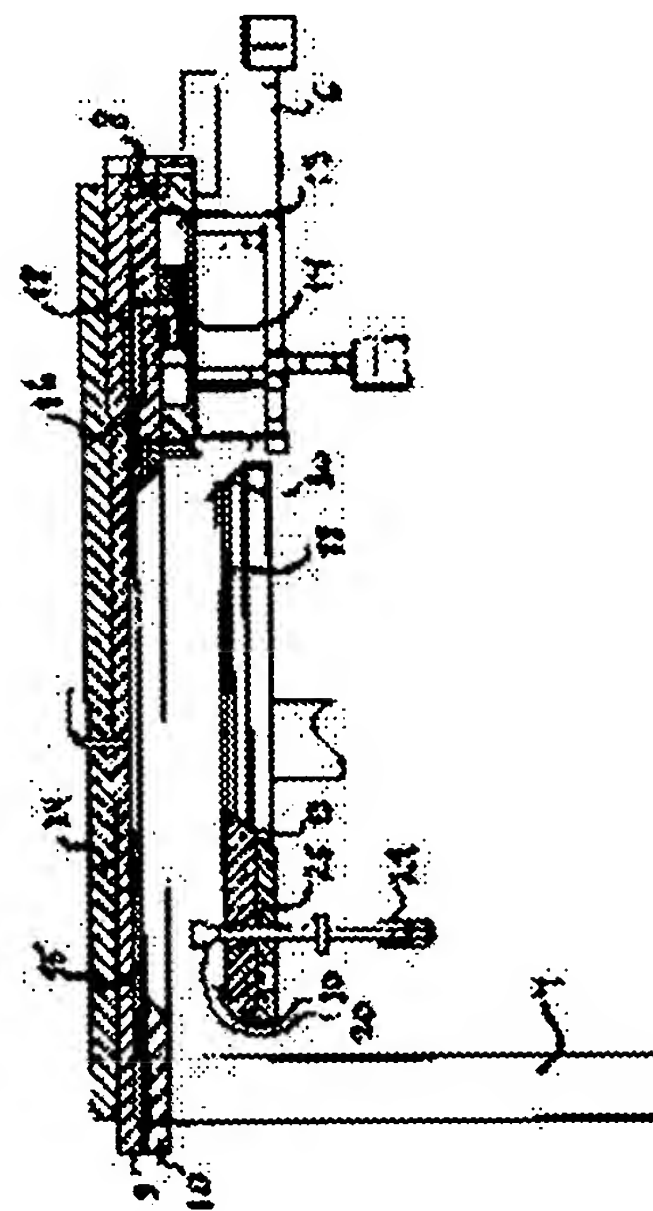
Priority number : 99 991078 Priority date : 10.05.1999 Priority country : FI

(54) THIN FILM MANUFACTURING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a device to grow a thin film on a substrate by exposing the substrate to the alternative surface reaction of a vapor phase reactant to form a thin film on the substrate through the surface reaction.

SOLUTION: This device comprises a vacuum container, and an outlet channel reaction chamber with a reaction space having an outlet channel 4 to discharge a gas reaction product and an excessive reactant and a feed channel 6 to feed the reactant used in a thin film growth process inside. The reaction chamber comprises base parts 9, 10 mounted on an inner wall of the vacuum container in a fixed manner, and a movable part 18 adapted to the base parts 9, 10 in a sealable manner. Cleanness of a substrate loading chamber is improved, and the degree of contamination of the substrate can be reduced. This device is intended for the use in manufacturing the thin film by the ALE method for the structure and a display unit of a semi-conductor layer.



LEGAL STATUS

[Date of request for examination] 08.02.2001

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]